

MEMORANDUM OF UNDERSTANDING

--AMONG--

THE UNITED STATES OF AMERICA ACTING THROUGH
THE DEPARTMENT OF THE INTERIOR, BUREAU OF
RECLAMATION, THE STATE OF ARIZONA ACTING
THROUGH THE ARIZONA DEPARTMENT OF WATER
RESOURCES, THE CENTRAL ARIZONA WATER
CONSERVATION DISTRICT, THE METROPOLITAN WATER
DISTRICT OF SOUTHERN CALIFORNIA, THE STATE OF
NEVADA ACTING THROUGH THE COLORADO RIVER
COMMISSION OF NEVADA, AND THE SOUTHERN
NEVADA WATER AUTHORITY

TO FACILITATE NEAR-TERM ACTIONS NECESSARY TO
MAINTAIN THE ELEVATION OF WATER IN LAKE MEAD

This Memorandum of Understanding, (hereinafter referred to as "2021 MOU"), is made and entered into this 15th day of December, 2021 ("Effective Date"), by and between the UNITED STATES OF AMERICA ("United States") represented by the Secretary of the Interior ("Secretary") acting through the Bureau of Reclamation ("Reclamation"), the STATE OF ARIZONA acting through the Director of the Arizona Department of Water Resources ("ADWR"), the CENTRAL ARIZONA WATER CONSERVATION DISTRICT, a multi-county water conservation district duly organized and existing under the laws of the State of Arizona ("CAWCD"), THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, duly organized under California law ("MWD"), and the STATE OF NEVADA acting through the Colorado River Commission of Nevada ("CRCNV") and the SOUTHERN NEVADA WATER AUTHORITY, a political subdivision of the State of Nevada ("SNWA"), each of which is at times referred to individually as "Party" and collectively as "Parties."

BACKGROUND

A. WHEREAS, the Colorado River basin began suffering from a meaningfully warmer and drier climate more than twenty years ago, leading to substantially diminished inflows into the system and decreased water elevation levels in both Lakes Mead and Powell;

B. WHEREAS, in response to the emerging climate reality, the Secretary adopted, and with the support and agreement of the Colorado River Basin Upper Division States of Colorado, New Mexico, Utah, and Wyoming, and the Lower Division States of Arizona, California, and Nevada, implemented the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead ("2007 Interim Guidelines") to, among other things, provide incentives and tools for the storage of water in Lake Mead and for Lake Mead elevation dependent shortages reducing annual allocations to the States of Arizona and Nevada beginning at 1075 feet;

C. WHEREAS, in 2014, to further help maintain the elevation of Lake Mead, the United States acting through Reclamation, Denver Water, CAWCD, MWD, and SNWA funded a Pilot System Conservation Program to reduce diversions from the Colorado River System through the voluntary, compensated, and temporary reduction in use by water users ("System Conservation");

D. WHEREAS, also in 2014, the Parties, together with the Colorado River Board of California, entered into a Memorandum of Understanding pursuant to which additional "protection volumes" were generated through conservation and other means and left in Lake Mead between 2014 and 2017 to help maintain Lake Mead elevation;

E. WHEREAS, in 2019, the Parties entered into a Lower Basin Drought Contingency Plan Agreement that further incentivized conservation and storage in Lake Mead and established elevation dependent contributions to Lake Mead's sustainability, including required contributions by each Lower Basin State. Federal legislation, the Colorado River Drought Contingency Plan Authorization Act, Pub. L. No. 116-14 (2019) directed the Secretary to implement a number of

agreements, including specifically an agreement applicable in the Lower Basin that implemented a Lower Basin Drought Contingency Operations rule set known as the LBOps;

F. WHEREAS, through Minute Nos. 318 (2010), 319 (2012), and 323 (2017) to the "United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande," signed February 3, 1944 ("1944 Water Treaty"), and in furtherance of the 1944 Water Treaty, the Parties incentivized the conservation of water in Mexico for subsequent delivery thereby benefitting storage in the United States (together "Mexican Water Reserve");

G. WHEREAS, as a result of the collective impact of the programs set forth above (approximately 4.0 million acre-feet), Lake Mead's elevation at the end of 2020 was approximately 50 feet higher than it would have been in their absence;

H. WHEREAS, despite the successes of implementing programs designed to meet the challenge brought about by a warmer, drier climate discussed above, Reclamation's August 2021 24-Month Study projected Lake Mead's elevation would be below 1,075 feet on January 1, 2022, and consistent with the provisions of the 2007 Interim Guidelines, a shortage declaration limiting deliveries of Colorado River water to Arizona and Nevada will be in effect in Calendar Year 2022. Furthermore, the August 2021 24-Month Study using the minimum probable inflow projected Lake Mead would fall below elevation 1,030 feet in July of 2023. That projection was sustained in the September and October 2021 24-Month studies using the minimum probable inflow;

I. WHEREAS, the LBOps provide that "If any 24-month Study for the minimum probable inflows projects that Lake Mead elevations will be at or below 1,030 feet anytime within the succeeding two Years, the Secretary and Lower Division States shall consult and determine what additional measures will be taken by the Secretary and Lower Division States to avoid and protect against the potential for lake Mead to decline below 1,020 feet";

J. WHEREAS, the Parties have engaged in initial and ongoing discussions and consultations regarding the foregoing, and technical workgroups have participated in Colorado River Mid-term Modeling System ("CRMMS") exercises to identify additional volumes of water

during Calendar Years 2022 and 2023 that are designed to avoid and protect against the elevation of Lake Mead declining to levels below 1,020 feet as contemplated in the LBOps;

K. WHEREAS, recognizing both the recent history of low runoff conditions and the variability of flows in the Colorado River Basin and without predetermining what additional measures may be appropriate or necessary through 2026, generally, these technical workgroups concluded that 500,000 or more acre-feet per year of additional reductions in water use or augmentation of system water may be required to meet this goal;

L. WHEREAS, the Parties recognize that facilitating reductions in use or augmentation of system water in the magnitude described above will require substantial funds. The United States, ADWR, CAP, MWD, and SNWA (collectively "Funding Parties") agree, pursuant to the terms, conditions, and limitations set forth below, to work in a coordinated fashion to identify and fund projects that result in measurable benefits to Lake Mead's elevation through Calendar Year 2023; AND

M. WHEREAS, the Parties enter this 2021 MOU with a collective understanding that while this effort addresses an acute short-term need to support Lake Mead elevations, future climate projections for the Colorado River Basin suggest worsening conditions. Accordingly, the Parties intend to regularly evaluate conditions throughout the term of this 2021 MOU and to use the information gained in any process developed to address longer term operations.

NOW, THEREFORE, in consideration of the mutual promises set forth herein, and other valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

AGREEMENT

1. Additional Parties. The Parties recognize that adding additional entities to this 2021 MOU may increase the extent to which the undertaking succeeds in sustaining Lake Mead elevations to avoid and protect against the potential for Lake Mead to decline below 1,020 feet.

To that end, additional entities may be added to this 2021 MOU as parties with the written consent of all existing Parties.

2. Additional Water. Additional Water means water remaining in Lake Mead that is either (a) not attributable to shortage volumes under the 2007 Guidelines or any DCP Contributions required in the LBOps; or (b) attributable to a net positive change in Intentionally Created Surplus ("ICS") behavior assumed in Reclamation's June 2021, 24-month study Most Probable projection.

3. Additional Water Sources. Provided such sources meet the definition of Additional Water in Paragraph 2 above, Additional Water Sources may include, but are not necessarily limited to: Creation of ICS, creation of system water (through increases in system efficiencies, conservation not inuring to an ICS account, augmenting system supply, not taking delivery of water authorized by an entitlement, or other means acceptable to the Parties), and decreasing ICS releases assumed in Reclamation's June 2021, 24-month study Most Probable projection.

4. Additional Water Minimum Target. The Parties are targeting a combined minimum of 1,000,000 acre-feet of Additional Water in 2022 and 2023, and such additional water as may be achievable in this timeframe. At the time of execution of this MOU, the Parties have identified potential Additional Water Sources to create approximately 500,000 acre-feet of Additional Water in 2022 and approximately 500,000 acre-feet of Additional Water in 2023.

5. Non-Federal Funding. The non-federal Funding Parties, subject to the availability of budgeted funds and any necessary board approvals, agree to fund participation in Additional Water projects up to, but not exceeding, the following amounts for 2022-2023:

- a. ADWR: \$40,000,000
- b. CAWCD: \$20,000,000
- c. MWD: \$20,000,000

d. SNWA: \$20,000,000

Total: \$100,000,000

The non-federal Funding Parties anticipate that their overall contribution for Additional Water will be in proportion to the commitment set forth above, though their contributions for any specific project may vary.

6. Federal Funding Match. The United States, subject to the availability of budgeted funds, will work to match the cumulative non-federal funding commitment above, with a goal of a total federal funding commitment of up to \$100,000,000, such that the total commitment by the Funding Parties, subject to all necessary approvals, availability of appropriations and available Additional Water Sources, is an aggregate of \$200,000,000 for 2022-2023.

7. Additional Water Sources Project Selection. As soon as practicable after the Effective Date, the Parties will work together to establish appropriate means and methods for Additional Water projects identification, consideration, selection, funding, administration, and validation, with the key considerations being the total quantity of Additional Water that can be created in support of Lake Mead elevations, the cost of such water quantities, and the timing of implementation of any projects for Additional water. This 2021 MOU shall not obligate any Funding Party to any specific contribution of funds or otherwise support any particular Additional Water project.

8. Adaptation. The Parties agree that conditions in the Colorado River Basin may improve or further deteriorate before the conclusion of 2023. Accordingly, the Parties agree to consult with each other at least semi-annually to evaluate current hydrologic conditions and may make reasonable and prudent adaptations to this 2021 MOU to meet such conditions.

9. Environmental Compliance. The Parties will comply with applicable law regarding implementation of this MOU.

10. Notice. To the extent that written notices and/or requests are undertaken under the terms of this 2021 MOU, the Parties may be contacted at the following addresses:

Reclamation:

Bureau of Reclamation
Attn: Deputy Regional Director
P.O. Box 61470
Boulder City, NV 89006-1470
Email: slwade@usbr.gov

ADWR:

Arizona Department of Water Resources
Attn: Director
P.O. Box 36020
Phoenix, AZ 85067
Email: tbuschatzke@azwater.gov

With copy to:

Nicole Klobas
Deputy Chief Counsel
P.O. Box 36020
Phoenix, AZ 85067
Email: ndklobas@azwater.gov

CAWCD:

Central Arizona Water Conservation District
Attn: General Manager
P.O. Box 43020
Phoenix, AZ 85080-3020
Email: tcooke@cap-az.com

With copy to:

Jay M. Johnson
General Counsel
P.O. Box 43020
Phoenix, AZ 85080-3020
jjohnson@cap-az.com

MWD:

The Metropolitan Water District of Southern California
Attn: General Manager

700 North Alameda Street
Los Angeles, CA 92363-2933
Email: AdelH@mwdh2o.com

CRCNV:

Colorado River Commission of Nevada
Attn: Executive Director
555 East Washington Avenue, Suite 3100
Las Vegas, NV 89101
Email: ewitkoski@crc.nv.gov

With a copy to:

Sara Price
Senior Assistant Director
555 East Washington Avenue, Suite 3100
Las Vegas, NV 89101
sprice@crc.nv.gov

SNWA:

Southern Nevada Water Authority
Attn: General Manager
1001 South Valley View Boulevard
Las Vegas, NV 89153
Email: john.entsminger@lvvwd.com

With copy to:

Gregory J. Walch
General Counsel
1001 South Valley View Boulevard
Las Vegas, NV 89153
greg.walch@lvvwd.com

The Parties agree that for purposes of complying with this section, notice through electronic mail is acceptable. A Party may update its contact information in this section without need to amend this 2021 MOU by providing notice to the Parties consistent with this section.

11. General Provisions.

- a) **Term.** This 2021 MOU shall be effective from the Effective Date until December 31, 2024 ("Term").
- b) **Reservation of Rights.** Nothing in this 2021 MOU shall be construed to

diminish or waive the rights of any Party to this MOU.

c) **Party Authorities.** Nothing in this 2021 MOU is intended to or shall be construed to limit or affect in any way the authority or legal responsibilities of any Party or to require any Party to perform beyond its respective authorities.

d) **Budget Limitations.** Nothing in this 2021 MOU may be construed to obligate any Party to any current or future expenditure of resources in advance of the availability of appropriations. Nor does this 2021 MOU obligate any Party to spend funds on any particular project or purpose, even if funds are available.

e) **Mission Influence.** The mission requirements, funding, personnel, and other priorities of the Parties may affect the Parties' ability to undertake actions to achieve the goals identified in this 2021 MOU.

f) **Separate Agreements Required for Transfer of Consideration.** Specific activities that involve the transfer of money, services, or property between Parties are not included in the scope of this 2021 MOU. To the extent that any such activities are subsequently considered between or among any of the Parties, execution of separate agreements or contracts will be required.

g) **Actions not Exclusive.** Nothing in this 2021 MOU is intended to or shall be construed to restrict the Parties from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

h) **No Third Party Beneficiaries.** This 2021 MOU is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any person or entity against any Party, including any Party board member, department, agency, entity, officer, employee, or agent.

- i) **Freedom of Information Act and State Open Records.** Any information furnished between the Parties under this 2021 MOU may be subject to the Freedom of Information Act, 5 U.S.C. § 552, et seq. ("FOIA") and/or respective state authorities. The Parties agree to consult each other regarding any such relevant requests and prior to releasing potentially privileged or exempt documents.
- j) **Choice of Law.** This 2021 MOU is subject, as applicable, to the laws of the United States of America.
- k) **Anti-Discrimination.** All work under the provisions of this 2021 MOU will be accomplished without discrimination against any employee because of race, sex, creed, color, national origin, or any other legally protected class as identified in Federal or applicable state law.
- l) **Renewals.** This 2021 MOU shall remain in effect for the Term as set forth above and may be renewed if the Parties agree.
- m) **Media/Notice.** The Parties will consult with each other in a timely manner to ensure coordination prior to release of any statements referring to this 2021 MOU intended for widespread publication.
- n) **No Endorsement.** Nothing in this 2021 MOU may be interpreted to imply that a Party endorses any product, service, or policy of the other Parties, except as specifically set forth in this 2021 MOU. No Party will take any action or make any statement that suggests or implies any such type of endorsement.
- o) **No Waiver.** No participant in this 2021 MOU will be considered to have waived any policy, administrative or legal right hereunder.
- p) **Amendments.** This 2021 MOU may be amended, modified, or

supplemented only by the written, signed agreement of the Parties.


q) **Conflicts of Interest.** No Member of or Delegate to the Congress, or Resident Commissioner, or official of the United States, Reclamation, ADWR, CAWCD, MWD, SNWA, or CRCN or any Elector or Electors may benefit from this 2021 MOU other than as a water user or landowner in the same manner as other water users or landowners. The Parties are hereby notified of A.R.S. section 38-511.

r) **Execution in Counterparts.** This 2021 MOU may be executed in counterparts, each of which will be an original and all of which, together, constitute only one 2021 MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this 2021 MOU on the day and year written above.


[SIGNATURES ON FOLLOWING PAGES]

THE UNITED STATES OF AMERICA

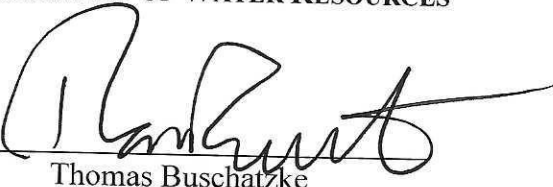
By: 
Camille Calimlim Touton
Commissioner
Bureau of Reclamation

Date: December 15, 2021


Approved as to form:

By: 
Nicole D. Klobas
Deputy Chief Counsel

**THE STATE OF ARIZONA ACTING
THROUGH THE DIRECTOR OF THE ARIZONA
DEPARTMENT OF WATER RESOURCES**

By: 
Thomas Buschatzke
Director

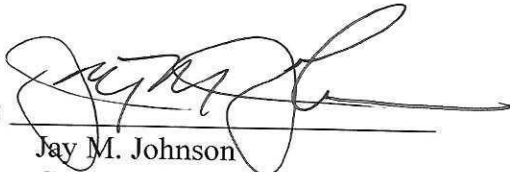
Approved as to form:

By: 
Jay M. Johnson
General Counsel


**CENTRAL ARIZONA WATER
CONSERVATION DISTRICT**

By: 
Terry Goddard, President
CAWCD Board of Directors

Approved as to form:


By: 
Jay M. Johnson
General Counsel


**CENTRAL ARIZONA WATER
CONSERVATION DISTRICT**

By: 
Theodore C. Cooke
General Manager

Approved as to form:


**THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA**

By: 
Marcia L. Scully
General Counsel

By: 
Adel Hagekhalil
General Manager

Approved as to form:

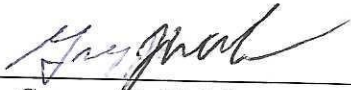
COLORADO RIVER COMMISSION OF NEVADA

By: 
Christine Guerei-Nyhus
Special Counsel Attorney General


By: 
Eric Witkoski
Executive Director

Approved as to form:

SOUTHERN NEVADA WATER AUTHORITY

By: 

Gregory J. Walch
General Counsel

By: 

John J. Entsminger
General Manager